



PATENT ABSTRACTS OF JAPAN

(11) Publication number: **2000101326 A**(43) Date of publication of application: **07.04.00**

(51) Int. Cl. **H01Q 3/26**
H04B 7/26

(21) Application number: **10270897**(22) Date of filing: **25.09.98**(71) Applicant: **HITACHI LTD**

(72) Inventor: **SHIKAMATA YOSHIHIRO**
SHIMOGAMA KIYOHIRO
UEDA MICHIAKI

(54) **POWER FEEDING CIRCUIT FOR DIRECTIONAL
VARIABLE MOBILE COMMUNICATION BASE
STATION**

(57) Abstract:

PROBLEM TO BE SOLVED: To obtain a power feeding circuit for a directional variable mobile communication base station whose amplifier operates in high efficiency and which can be configured, without needing an amplifier having especially large saturation power and is easy to design by providing a branching filter/ synthesizing circuit consisting of plural specified degree hybrids.

SOLUTION: A modulation signal to be transmitted in a base station is inputted to a transmission signal input 1 and inputted to a level control circuit 2 having four outputs. The output level control circuit 2 divides the modulation signal into four and outputs the same phase signal modulated into an arbitrary level to each port (a) to (d). The modulation signal of each port (a) to (d) of the circuit 2 is made to pass through a branching filter/synthesizing circuit consisting 90° hybrids 3 and is converted into a signal for input ports (e) to (h) of each amplifier. A modulation signal in the

signal state for each amplifier input port (e) to (h) is amplified by an amplifier 4, is also made to pass through a branching filter/synthesizing circuit consisting 90° hybrids 3 and is converted into the signals for each port (i) to (l).

COPYRIGHT: (C)2000,JPO

